

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

1. (Currently Amended) A manufacturing process for a microwave corrugated-horn antenna comprising a horn, an impedance adapter, and a polarizer, comprising the steps of:
thermoforming the corrugations of the horn on the external surface of a first section of a conical block of synthetic foam of conical shape in order to form the horn, in a single step, using a single mold, to create a horn, a circular polarizer and an impedance adapter of the antenna by deformation of said external surface, and then
thermoforming a circular groove on the external surface of a second section of the block of foam in order to form an impedance adapter, and
thermoforming two radial slots on the external surface of a third section of the block of foam in order to form a polarizer,
wherein the thermoforming of the three sections of the block of foam is carried out in a single step using a single mold, and
metallizing the external surfaces of the three sections of the thermoformed conformed block of foam in order to form the antenna.
2. (Cancelled)
3. (Cancelled)
- 4 – 8. (Cancelled)
9. (New) The manufacturing process of claim 1 wherein the metallization of the surface of the block of foam is carried out by a process selected amongst projection, using a brush, or dipping.

10. (New) A microwave corrugated-horn antenna, comprising a horn, an impedance adapter, and a polarizer, formed as a single piece from a thermoformed block of foam having:

a) the corrugations of the horn on the external surface of a first section of the block of foam of conical shape,

b) a circular groove forming an impedance adapter on the external surface of a second section of the block of foam, and

c) two radial slots forming a polarizer on the external surface of a third section of the block of foam,

wherein the surfaces of the sections of the block of foam are metalized.